BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

In the Matter of	)	
	)	
PUBLIC UTILITIES COMMISSION	)	Docket No. 2008-0274
	)	
Instituting a Proceeding to Investigate Implementing a Decoupling Mechanism for Hawaiian Electric Company, Inc., and Hawaii Electric Light Company, Inc., and Maui Electric Company, Limited.	)	

HAIKU DESIGN AND ANALYSIS

RESPONSE TO INFORMATION REQUESTS

TRANSMITTED BY THE COMMISSION ON JUNE 5, 2009

Carl Freedman, dba Haiku Design and Analysis (HDA) respectfully offers the following response to the information requests transmitted by the Commission in this docket on June 5, 2009. HDA responds below to PUC-IR-47 addressed specifically to HDA.

HDA is providing its response to PUC-IR-47 immediately and well before it is due in order to (a) provide the response promptly to HECO in aid of HECO's responses to PUC-IR-46 (which refers to the HDA RPC mechanism) and (b) allow the Commission or its consultant(s) to request any clarifying questions or modifications in case HDA's response is not sufficiently "concise, complete and comprehensible" or is in any other way off-the-mark or disappointing.

PUC-IR-47: The record does not contain, in one place, a concise, complete and comprehensible description of precisely how HDA's revenue per customer approach works. Please provide a prose description, limited to two pages, that explains the proposal fully in a manner understandable to the average reader. The description should include a simple, "stick figure" example that illustrates –

A. the workings of the proposal under simple assumptions of base revenue requirement, number of customers, average customer usage and any other necessary assumptions; and

B. the outcomes under varying assumptions of number of customers, and average customer usage.

HDA may also provide a more realistic set of numerical examples, more complex than the stick figure example. With any of these numerical examples, include all notes and explanations necessary to make the examples self-explanatory. The reader should have everything necessary in this one illustration. The explanation need not contain the description of the various rate schedules included or excluded, as that material already appears clearly in HDA's FSOP.

HDA Response:

HDA's revenue per customer (RPC) "recoupling" mechanism is described below. A two-page description of the operation of the mechanism is provided titled DESCRIPTION OF THE OPERATION OF THE HDA RPC MECHANISM.

BACKGROUND

An HDA RPC recoupling mechanism was originally proposed as one part of an "HDA example mechanism" described in several previous filings in this docket, including HDA's Opening Statement of Position. The HDA example mechanism included both a decoupling mechanism and an RPC recoupling mechanism. In its Final Statement of Position, HDA (a) withdrew the decoupling portion of its HDA example mechanism from further consideration in favor of HECO's revenue balancing account (RBA) decoupling mechanism (with suggested modifications) and (b) noted that the HDA RPC recoupling approach could be applied to the HECO RBA decoupling mechanism and should be considered as an alternative to HECO's revenue adjustment mechanism (RAM). HDA's

RPC recoupling mechanism is now proposed to be implemented in conjunction with the HECO RBA decoupling mechanism format.

DESCRIPTION

In the current HDA RPC proposal, decoupling would be implemented as proposed in the HECO RBA decoupling mechanism except that the HDA RPC mechanism would be used to adjust the periodically calculated allowed recovery target instead of HECO's proposed RAM. The HDA RPC recoupling mechanism would allow recovered target revenues to grow in the years between rate cases in proportion with an index of the number of new customers.

DESCRIPTION OF THE OPERATION OF THE HDA RPC MECHANISM

The HDA RPC mechanism would replace the HECO RAM in determining the decoupling revenue targets in HECO's RBA decoupling mechanism. Decoupling revenue targets would grow in direct proportion to an index of the number of customers in each customer class grouping. The HDA RPC mechanism is described below in Steps 2, 3 and 4. Steps 1 and 5 outline the rudiments of the HECO RBA decoupling mechanism to provide context to make the description self-explanatory. Several details are omitted for the sake of simplicity in presentation, including monthly allocations for revenue targets, accrual of interest on under and over collections and treatment of taxes.

RATE CASE DETERMINATIONS:

Step 1: In the context of a rate case the test year base "target" revenue (TY BASE REV) would be identified for each decoupling customer class grouping. The test year target revenue would equal the total test year authorized revenue requirement (TY TOTAL REV REQ) minus the purchased energy and fuel expense component of these revenues (TY FUEL & PE EXP).

TY BASE REV = TY TOTAL REV REQ – TY FUEL & PE EXP

Step 2: The test year number of customer accounts in each decoupling customer class grouping would be identified (TY CUSTOMERS).

PERIODIC DECOUPLING ADJUSTMENT DETERMINATIONS:

Step 3: A current index of the number of customers (CURRENT CUSTOMERS) would be determined. The index of the number of customers used in the mechanism is intended to serve as a proxy for the amount of growth on the utility system. In order to serve this specific purpose simply, without opportunity for gaming or spurious circumstances, the following conventions are suggested.

For each customer class group the index of the number of customers would be equal to the test year number of customers plus the number of new customers at new premises. Ordinarily a building permit would be associated with each new customer.

Expiring customer accounts would not reduce the index of the number of customers and new accounts at premises that previously received service would not be added.

Accounts generated by converting master metered buildings to individually metered accounts (or vice versa) would not change the index of the number of customers.

Customers moving from one customer class to another should be treated according to a reasonable convention that could be discussed.

Step 4: The current base revenue recovery target (CURRENT REV TARGET) would be determined for each customer class grouping to equal the test year base target revenue times the ratio of the current index of number of customers divided by the test year number of customer accounts. [This step replaces the RAM proposed by HECO in its RBA decoupling mechanism.]

CURRENT REV TARGET = TY BASE REV x (CURRENT CUSTOMERS ÷ TY CUSTOMERS)

Step 5: Revenues would then be decoupled according to the RBA decoupling mechanism proposed by HECO (described below) except that the current base revenue target determined in Step 4 above would be used instead of a revenue target determined by HECO's proposed RAM.

(a) Actual purchased energy and fuel expenses (ACTUAL FUEL & PE EXP)[1] would be deducted from actual revenues (ACTUAL REV) to determine actual base revenues (CURRENT BASE REV) to be applied to the current revenue target.

CURRENT BASE REV = ACTUAL REV – ACTUAL FUEL & PE EXP

(b) The difference between the current base revenues (determined in (a) above) and the current base revenue recovery target (determined in Step 4 above) would be the allowed current period decoupling revenue adjustment (CURRENT REV ADJUST).

CURRENT REV ADJUST = CURRENT REV TARGET – CURRENT BASE REV

(c) Under or over-collections of previous period decoupling revenue and other adjustments would be calculated for reconciliation (PREV PERIOD RECONCIL).

(d) The resulting decoupling adjustment in $ per kWh (DECOUPLING ADJUSTMENT) to be applied for the next period would be determined as the current period revenue adjustment plus or minus the under or over-collection from the previous period denominated by a projection of sales for the next period (NEXT PERIOD SALES).

$$\textbf{DECOUPLING ADJUST} = \frac{\textbf{(CURRENT REV ADJUST + PREV PERIOD RECONCIL)}}{\textbf{NEXT PERIOD SALES}}$$

NUMERICAL EXAMPLE WITH ALTERNATE SCENARIOS

Example outcomes from various assumptions regarding sales and customer growth are shown below for HECO Schedule R based on the Update Case of the HECO TY2009 Rate Case Application. The HDA RPC mechanism (steps 2, 3 and 4 above) is shown in bold in lines G, H and J. The other lines represent the operation of the HECO RBA decoupling mechanism.

Line			Scenario =>	TY	1	2	3	4	5	6	7	8
A		Sales (Factor of TY Sales)			1.00	1.00	1.05	1.05	1.10	1.10	0.90	0.90
B		Customers (Factor of TY Customers)			1.00	1.03	1.00	1.03	1.00	1.03	1.00	1.03
C		Sales per Customer Factor			1.000	0.971	1.050	1.019	1.100	1.068	0.900	0.874
	Step		Source	Test Year Sched R								
D	1	TY REVENUE REQ. ($M)	HECO-2214	537.9								
E	1	TY FUEL & PE EXP ($M)	HECO-WP-2203	335.5								
F	1	TY BASE REV ($M)	D - E	202.4								
G	**2**	**TY CUSTOMERS**	HECO-2214	**3,143**								
H	**3**	**CURRENT CUSTOMERS**	G * B		**3,143**	**3,237**	**3,143**	**3,237**	**3,143**	**3,237**	**3,143**	**3,237**
J	**4**	**CURRENT REV TARGET ($M)**	F * (H / G)		**202.4**	**208.4**	**202.4**	**208.4**	**202.4**	**208.4**	**202.4**	**208.4**
K	5a	ACTUAL REV ($M)	D * A		537.9	537.9	564.8	564.8	591.7	591.7	484.1	484.1
L	5a	ACTUAL FUEL & PE EXP ($M)	E * A		335.5	335.5	352.3	352.3	369.1	369.1	302.0	302.0
M	5a	CURRENT BASE REV ($M)	K - L		202.4	202.4	212.5	212.5	222.6	222.6	182.1	182.1
N	5b	CURRENT REV ADJUST ($M)	J - M		0.0	6.1	-10.1	-4.0	-20.2	-14.2	20.2	26.3
O	5c	PREV PERIOD RECONCIL ($M)			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P	5d	NEXT PERIOD SALES (MWH)	P[TY] * A	2,088.4	2,088.4	2,088.4	2,192.8	2,192.8	2,297.2	2,297.2	1,879.6	1,879.6
Q	5d	DECOUPLING ADJUST ($/kWh)	(N + O) / P		$0.000	$0.003	-$0.005	-$0.002	-$0.009	-$0.006	$0.011	$0.014
R		AVERAGE RATE ($/kWh)	D / P + Q	$0.258	$0.258	$0.260	$0.253	$0.256	$0.249	$0.251	$0.268	$0.272
S		DECOUPLING ADJUST (%)	Q / R		0.00%	1.13%	-1.79%	-0.72%	-3.42%	-2.39%	4.18%	5.43%

[1] As proposed by HECO in its Final Statement of Position, actual fuel and purchased energy expense would be used (by way of full-pass-through ECAC reconciliation) unless the actual system heat rate falls outside of a prescribed ECAC deadband, in which case actual purchased energy and calculated ECAC fuel expenses would be used.

CERTIFICATE OF SERVICE

I hereby certify that I have, on June 8, 2009 served a copy of the foregoing HAIKU DESIGN RESPONSE TO INFORMATION REQUESTS TRANSMITTED BY THE COMMISSION ON JUNE 5, 2009 upon the following entities, by first class mail or by electronic transmission as noted:

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Dated: June 8, 2009; Haiku, Hawaii

Signed: CARL FREEDMAN

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